Sub Spec mE, #17

# CAP

## BACKGROUND OF THE INVENTION

This invention relates to a cap, including a hat, hood and the like, with a sunshade cover.

When people are out in the fields under strong sunlight for a long time, they not only wear a cap on the head but also put a wet towel between the head and the cap in order to avoid having the midsummer sunstroke and having bad sunburn on the back of the neck. However the wet towel gets dry quickly under the strong sunlight and also may be displaced when a strong wind blows. Then, Japanese Utility Model Application No. 61-156545 discloses a "Head Cooling Cap". This cap is equipped with a rosin material that absorbs water very well therein and cools the head of the cap wearer by absorbing the heat of a space surrounding the cap. This cap, however, cannot cool the back of the head and neck and protect from strong sunlight. Since it also has to be entirely dipped into water before it is worn and the additional water touches the sensitive forehead and upper portion of the face, such a cap is uncomfortable.

## SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a cap with a shading cover which [can protect the back part of the head and nape of a person under a scorching sun from the direct rays and the heat of the sun and having a cold insulator incorporated therein to keep cool the head and nape of the wearer for a long time.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a vertical cross section of a cap with a sunshade cover when in use that the sunshade cover is hanging down from a cap body showing a first embodiment of the present invention;

Fig. 2 is a cross sectional view showing the way in which the sunshade cover is stored within the cap body;

Fig. 3 illustrates how to use the cap of the present invention;

Fig. 4 is a cross sectional view of a cup formed in the shape of a hat with a sunshade cover showing another feature of the first embodiment of the present invention;

Fig. 5 is an explanation view of a connector 3 that connects removably and rotatably the sunshade cover to the cap body;

Fig. 6 is an explanation view of a hood with a sunshade cover showing a second embodiment of the present invention;

Fig. 7 illustrates the back of the head of a wearer of the hood showing the second embodiment of the present invention; and

Fig. 8 is an explanation view showing the way in which the hood with the sunshade cover is worn over the cap.

## DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings. Figs. 1 and 2 are vertical cross sections of a cap according to the invention. The cap comprises a cap body 2 and a sunshade cover 1. The cap body 2 has a visor 8. As shown in Fig. 1, the sunshade cover 1 is hanging down from the cap body 2. In contrast, the cover 1 is kept inside the cap body 2 in Fig.

2.

As may be better seen from Fig. 3(a), the cap body 2 is provided with two opposed burred sides 5 and 5' of a hook and loop as both-sided adhesive at the inside of its circumferential edge. Similarly, the sunshade cover 1 is provided with two opposed looped sides 4 and 7 of a hook and loop as a both-sided adhesive at its outside. As shown in Fig. 3(a), the looped side 4 of the both-sided adhesive of the sunshade cover 1 can be joined with the burred side 5 of the both-sided adhesive of the cap body 2, and the looped side 7 of the both-sided adhesive of the cover 1 can be joined with the burred side 5' of the both-sided adhesive of the cap body 2. The two opposed sides of the sunshade cover 1 can be thus fastened to the cap body 2. In addition, as shown in Figs. 1, 2 and 3(a) to 3(c), the sunshade cover 1 can be also connected to the inside of the cap body 2 by means of a middle connector 3 at its middle portion. This middle connector 3 is passing through openings (not shown) made in the cover 1 and the cap body 2 (Fig. 5).

The sunshade cover 1 has an inner space that contains a relatively small bag of fabric, or cooling member 6 (Figs. 1 and 2), containing a material that absorbs water very well and stitched into the inner space in such a manner that the small bag is accommodated flat in the inner space. And, as such a water-absorbing material to be put into the small bag, one can effectively use, for example, fibers obtained by processing a polymer that contains the sodium salt of polyacrylic acid as a major component.

This cap of the invention can be very effectively used to avoid sunstroke when one is exposed to direct or strong sunlight for a long time. In use, one first dips the sunshade cover 1, only the sunshade cover 1, into water, so that the cooling member 6

thus absorbs the water very well. Then, he or she puts the cap on his or her head with its sunshade cover 1 hanging down from the cap body 2 as shown in Figs. 1 and 3(a). The wearer of the cap is now ready to carry out some activity or sit or stand still for a long time under strong sunlight, because the cooling member 6 absorbs the heat of the space surrounding this member 6 as the water absorbed by the above-mentioned water-absorbing material evaporates under strong sunlight. The sunshade cover 1 thus cools the head of the cap wearer under strong sunlight. To be exact, the sunshade cover 1 cools both the lower part of the back of the head and the back of the neck when that cover 1 is hung down from the cap body 2.

In addition, one can also wear this cap of the invention in order to cool the top of his head under strong sunlight, because the sunshade cover 1 can be shifted from the hanging position of Figs. 3 and 3(a) to an inner position of Figs. 2 and 3(c) in the cap body 2. To shift the cover 1 to this inner position, one first pulls apart the looped fastener element 4 and the burred fastener element 5 and also pulls apart the looped fastener element 7 and the burred fastener element 5'. Then, one turns the sunshade cover 1 in either one of two opposite directions, as shown in Fig. 3(b). In Fig. 3(b), the cover 1 is being turned in a counterclockwise direction 9 when viewed from under the cap. And this turning is done for an angle of 180 degrees, and then this time the looped fastener element 7 is joined with the burred fastener element 5 and the looped fastener element 4 is joined with the burred fastener element 5', as illustrated in Fig. 3(c). The sunshade cover 1 thus can be shifted to the inner position in the cap body 2. In this position the sunshade cover 1 can cool both the upper part of the back of the head and the top of the head, as can be seen from Fig. 2.

The reason why the cover 1 can be turned in such a manner is because of the

construction of the middle connector 3 with a stopper pin 3a. Detailed construction of this connector 3 is shown in Fig. 5.

As illustrated in Fig. 5, this connector 3 comprises a male piece 31 passing through the thickness of the sunshade cover 1 and a female piece 32 passing through the thickness of the cap body 2. The male piece 31 has a projecting portion 31A in the shape of an inverted trapezoid, and the female piece 32 has a complementary recess 32A into which the projecting portion 31A is rotatably fit. Thus the male piece 31 and female piece 32 is mated with each other such that the male piece 31 can be rotated. Thus the sunshade cover 1 can be turned or shifted to the inner position of Fig. 2 by rotating the male piece 31.

In addition, the male piece 31 can be separated from the female piece 32 to detach the sunshade cover 1 from the cap body 2. If it is detached from the cap body 2, one can wear this cap as a usual cap.

It will be appreciated that this cap of the invention is very suitable for, for example, a spectator at a baseball or soccer game played under a burning sun in the height of summer. The wearer of this cap can feel pleasantly cool at the head under such a condition. If a design or pattern is printed on the sunshade cover 1, it is usually printed on the outside of the cover 1. This cover 1 contacts the head of the cap wearer at its inside either when the cap is worn with the cover 1 in the hanging position of Fig. 1 or when it is worn with the cover 1 in the inner position of Fig. 2. Therefore the outside of the cover 1, or the printed side thereof, is not polluted by the cap wearer's hair.

The cap of figs. 1 to 3(a) is one aspect of a first embodiment of the invention. Fig. 4 depicts another aspect of the first embodiment of the invention. That is, Fig. 4 depicts a hat with a sunshade cover 1. In Fig. 4 the same reference numerals as those of the

cap are used to designate parts similar to those of the cap. As with the cap, the sunshade cover 1 of the hat of Fig. 4 contains an inner cooling member 6. The sunshade cover 1 is removably connected to a cap body 2 in a similar manner to the sunshade cover 1 of the cap.

Figs. 6, 7 and 8 illustrate a second embodiment of the invention. That is, these Figures show a hood with a sunshade cover. Reference numerals 61 and 64 designate the front and back, respectively, of a headband of elastic material. The front 61 of the headband is secured to a sunshade cover 63 at 62, as by stitching. A cooling member 65 is provided in the back 64 of the headband, and is in such a position as to cool the back of the head 67 of a hood wearer. Also, another cooling member 66 is provided in the sunshade cover 63, and is in such a position as to cool chiefly the back 68 of the neck. The same water-absorbing material as in the cap of Fig. 1 may be put into the cooling members 65 and 66. If desired, as shown in Fig. 8, one can wear the hood of Figs. 6 and 7 over a usual cap. If one wears the hood in such a manner, not only does the sunshade cover 63 cool the head and the back of the neck of the wearer, but the head serves to secure the cap to the head and hence prevents the cap from being blown off by a strong wind.

As set forth above, by wearing the cap of this invention, it prevents the back of the head or a neck from a direct rays when a user is playing in an amusement park, watching sport games in the soccer stadium and baseball field under blazing heat. In addition, If only a shade cover part is soaked in water and worn, since the cooking material will hold moisture so much, by evaporation heat's occurring with the heat of direct rays, and taking heat from the circumference, a wear part can be made into low temperature and can be made cool. Accordingly, It can be used for watching the sport

games etc., blazing heat comfortably for a long time and so on. Furthermore, if the shade cover part is contained inside the main part of a hat, the cooling material is located in an upper head and an upper head can be cooled efficiently. Also since it can remove, the shade cover part can be removed and can be cleaned.

The hood structure including a hair band and a shading cover is provided with a cold insulator for doubly cooling the head and nape of the wearer. In addition, It can avoid blowing away, even if a strong wind blows when carrying out sports, such as a triathlon under blazing heat, and fishing in the sea, since it is fixable to a head firmly by wearing a hair band over on a hat.